

Claims:

1. (Original) A method for determining position of a target moving relative to a magnetic sensor, the target having magnetic irregularities defining a pitch, an output of the magnetic sensor being responsive to movement of the target relative thereto, a voltage level of the output having a range comprising, for each pitch, at least one linear slope, said method comprising the steps of:

determining a maximum voltage level of the output of the magnetic sensor;

determining a minimum voltage level of the output of the magnetic sensor;

calculating a preselected number of mutually spaced voltage levels, each said voltage level corresponding to a respective voltage level of the at least one linear slope; and

generating a plurality of position pulses, each position pulse being generated when the voltage level of the output of the magnetic sensor has a predetermined relationship with respect to a respective calculated voltage level on the at least one linear slope.

2. (Original) The method of Claim 1, wherein the at least one linear slope comprises a linear first slope and a linear second slope, wherein said step of generating a position pulse further comprises: a position pulse being generated if the voltage level of the output of the magnetic sensor is at least equal to a respective calculated voltage level on the linear first slope; and

a position pulse being generated if the voltage level of the output of the magnetic sensor is at most equal to a respective calculated voltage level on the linear second slope.

3. (Original) The method of Claim 2, further comprising detecting a reference pulse before said step of calculating.

4. (Original) The method of Claim 3, further comprising, before said step of calculating and after said step of detecting, calculating a first calculated voltage level of the preselected number of voltage levels at a beginning of the first slope.

5. (Original) The method of Claim 4, wherein said step of calculating further comprises determining which of said first and second slopes the output voltage of the sensor is to be compared to in said step of generating.

6. (Original) A method for determining position of a target moving relative to a magnetic sensor, the target having magnetic irregularities defining a pitch, an output of the magnetic sensor being responsive to movement of the target relative thereto, a voltage level of the output having a range comprising, for each pitch, at least one linear slope, said method comprising the steps of:

determining a maximum voltage level of the output of the magnetic sensor;

determining a minimum voltage level of the output of the magnetic sensor;

determining a preset number of pitches;

calculating a voltage level when the preset number of pitches has occurred, wherein the voltage level corresponds to a respective voltage level of the at least one linear slope; and

generating a position pulse when the voltage level of the output of the magnetic sensor has a predetermined relationship with respect to the calculated voltage level on the at least one linear slope.

7. (Original) The method of Claim 6, wherein the at least one linear slope comprises a linear first slope and a linear second slope, wherein said step of generating a position pulse further comprises:

the position pulse being generated if the voltage level of the output of the magnetic sensor is at least equal to a respective calculated voltage level on the linear first slope; and

the position pulse being generated if the voltage level of the output of the magnetic sensor is at most equal to a respective calculated voltage level on the linear second slope.

8. (Original) The method of Claim 5, further comprising detecting a reference pulse before said step of calculating.

9. (Original) The method of Claim 8, wherein said step of calculating comprises:

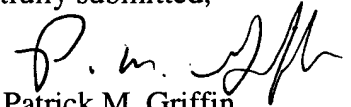
determining which of said first and second slopes the output voltage of the sensor is to be compared to in said step of generating.

10. – 13. (Cancelled)

The Commissioner is authorized to charge our Deposit Account No. 50-0831 for any fees or credit the account for any overpayment.

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Respectfully submitted,

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